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IN THE

Supreme Court of the United States

OCTOBER TERM, 1999

COLUMBIA FALLS ALUMINUM CORP., ELF ATOCHEM NORTH AMERICA, INC., GOLDENDALE ALUMINUM CORP. (F/K/A COLUMBIA ALUMINUM CORP.), KAISER ALUMINUM & CHEMICAL CORP., NORTHWEST ALUMINUM CO., REYNOLDS METALS CO., VANALCO, INC.,

Petitioners,

-- against --

ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION.

Respondent.

APPENDIX TO PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

PAUL M. MURPHY
(Counsel of Record)
JAMES L. BUCHAL
MURPHY & BUCHAL LLP
1135 Crown Plaza
1500 SW First Avenue
Portland, OR 97201
(503) 227-1011
Counsel for Petitioners

November 18, 1999

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APPENDIX

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UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

ALUMINUM COMPANY OF AMERICA, COLUMBIA ALUMINUM CORPORATION, COLUMBIA FALLS ALUMINUM COMPANY, ELF ATOCHEM NORTH AMERICA, INC., INTALCO ALUMINUM CORPORATION, KAISER ALUMINUM & CHEMICAL CORPORATION, NORTHWEST ALUMINUM COMPANY, REYNOLDS METALS COMPANY, and VANALCO, INC.,	)	No. 95-70480
Petitioners, vs. ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION,	)	OPINION
Respondent.	)	

Petition to Review a Decision of the Bonneville Power Administration.
Argued and Submitted Jan. 11, 1999.
Filed May 10, 1999.
Before: LEAVY, McKEOWN, and WARDLAW, Circuit Judges.
McKEOWN, Circuit Judge.
Opinion by Judge McKeown.

*1157 James L. Buchal, Murphy & Buchal, Portland, Oregon, for the petitioners.

Ellen D. Katz, United States Department of Justice, Environment and Natural Resources Division, Washington, D.C., for the respondent.

This proceeding is the latest in a series of cases involving the continuing conflict between salmon and hydropower, "the two great natural resources of the Columbia River Basin." Northwest Resource Info. Ctr., Inc. v. Northwest Power Planning Council, 35 F.3d 1371, 1375 (9th Cir.1994). Salmon, as anadromous fish, hatch in freshwater tributaries, and then travel as juveniles or "smolts" to the ocean, where they reach maturity. As adults, salmon return to their natal streams and lakes to spawn and die. In traveling to and from the Pacific Ocean, the salmon species at ***1158** issue here [FN1] must pass through or around [FN2] dams and reservoirs that are part of the world's largest hydropower system, the Federal Columbia River Power System (the "FCRPS"). The U.S. Army Corps of Engineers (the "Corps") and the U.S. Bureau of Reclamation (the "Bureau") operate the FCRPS. In turn, the Bonneville Power Administration (the "BPA") markets the hydroelectric power generated by the FCRPS.

> FN1. This case involves Snake River sockeye and Snake River spring/summer and fall chinook, which are subject to protection under the Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544.
>
> FN2. At certain dams, a portion of the juvenile salmon are loaded into tanker trucks or barges equipped with river water circulation systems and transported to a release site downstream.

In 1995, the National Marine Fisheries Service ("NMFS") declared that the then proposed FCRPS operations plan would jeopardize the continued existence of the salmon at issue and recommended measures to avoid such jeopardy. On March 10, 1995, the BPA issued a Record of Decision adopting NMFS's suggestions (the "1995 ROD"). In June 1995, several companies that purchase power from the BPA, known as direct service industrial customers (collectively, the "DSIs"), petitioned for review of the 1995 ROD, claiming among other things that the BPA acted arbitrarily, capriciously, or contrary to law in adopting the remedial measures proposed by NMFS. The DSIs also contend that the BPA inappropriately failed to prepare an environmental impact statement. We have jurisdiction pursuant to 16 U.S.C. § 839f(e)(5), and we deny the petition.

I. Background

A. Endangered Species and the Statutory Framework

The events giving rise to this dispute began with NMFS's identification in 1991 of Snake River sockeye as an endangered species and NMFS's listing in 1992 of Snake River spring/summer and fall chinook as threatened species. [FN3] As a result, these salmon species came under the protection of the Endangered Species Act, section 7 of which mandates, in part, that:

> FN3. A species is classified as "endangered" if it is "in danger of extinction throughout all or a significant portion of its range." 16 U.S.C. § 1532(6). A species is classified as "threatened" if it is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." 16 U.S.C. § 1532(20). In 1994, the status of spring/summer and fall chinook was changed from threatened to endangered. Ramsey v. Kantor, 96 F.3d 434, 437 n. 1 (9th Cir.1996).

> Each Federal agency shall, in consultation with and with the assistance of the Secretary [of the Interior or Commerce], insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary to be critical....

16 U.S.C. § 1536(a)(2). This subsection further provides:

> In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available.

Id. With regard to salmon, the Secretary of Commerce has delegated its authority to NMFS. See 50 C.F.R. § 402.01(b); American Rivers v. National Marine Fisheries Serv., 126 F.3d 1118, 1122 n. 7 (9th Cir.1997).

When formal consultation is required under section 7, NMFS, as the "consulting agency," must provide "a written statement ... detailing how the agency action affects the species or its critical habitat" to the federal agency at issue (also referred to as the

"action agency"). 16 U.S.C. § 1536(b)(3)(A); see 50 C.F .R. § 402.14 (formal consultation is required if an action ***1159** might affect a listed species or critical habitat). This written statement is referred to as a Biological Opinion ("BiOp"). If the BiOp concludes that jeopardy or adverse modification exists, NMFS must suggest reasonable and prudent alternatives ("RPAs") that it believes would not violate section 7(a)(2) and that can be implemented by the action agency. 16 U.S.C. § 1536(b)(3)(A). In addition, if NMFS concludes that no jeopardy exists or that RPAs would avoid jeopardy and that the incidental taking of endangered or threatened species will not violate section 7(a)(2), NMFS must issue an Incidental Take Statement specifying the conditions under which incidental taking may occur. 16 U.S.C. § 1536(b)(4).

B. Litigation Over Earlier Biological Opinion

The competing environmental and economic interests associated with FCRPS operations have spawned years of litigation. The present action follows a series of decisions and BiOps dealing with salmon and FCRPS operations. In 1992, in an effort to assist the downstream migration of juvenile salmon, the Corps and the Bureau increased water flows through the system to augment the velocity of the river and create water spills at the dams. This approach engendered considerable debate as to its efficacy and economics.

Following the 1992 decision to increase water flows, several power purchasers, including the DSIs, unsuccessfully challenged two related "no jeopardy" BiOps issued by NMFS. Pacific N.W. Generating Co-op. v. Brown, 38 F.3d 1058 (9th Cir.1994). The DSIs argued that the 1992 BiOps failed to consider the impact of harvesting on the listed species and were not based on the best scientific and commercial evidence. Id. at 1061. While that case was pending, NMFS issued another "no jeopardy" BiOp concerning FCRPS operations for 1993 (the "1993 BiOp"). The district court disapproved of NMFS's 1993 BiOp in Idaho Dep't of Fish & Game v. National Marine Fisheries Serv., 850 F.Supp. 886 (D.Or.1994), vacated as moot, 56 F.3d 1071 (9th Cir.1995).

In the meantime, however, NMFS had issued another "no jeopardy" BiOp regarding FCRPS operations for the years 1994

through 1998 (the "1994 BiOp"). The 1994 BiOp contained the same errors the district court had identified in the 1993 BiOp. As a result of the district court's decision in Idaho, NMFS reinitiated consultation and subsequently issued a BiOp for 1995 and future years (the "1995 BiOp"). The 1995 BiOp superseded the 1994 BiOp and is the BiOp at issue here.

C. The 1995 Biological Opinion and the BPA's 1995 Record of Decision

In contrast to the previous BiOps, the 1995 BiOp concluded that the operation of the FCRPS jeopardizes the continued existence of the listed salmon and adversely modifies their critical habitat. Before reaching this conclusion, NMFS participated in a series of discussions with two groups formed to assist the federal consulting and action agencies in complying with the district court's judgment in Idaho: (i) the Biological Requirements Work Group ("BRWG"), and (ii) the Actions Work Group ("AWG"). [FN4] These groups were composed for the most part of the parties to Idaho, including the BPA. The BRWG and AWG began meeting shortly after the Idaho court issued its decision in *1160 the spring of 1994 and continued discussions throughout the summer and fall.

> FN4. Several DSIs subsequently brought suit, claiming that the BRWG and AWG were "advisory committees" subject to and acting in violation of the Federal Advisory Committee Act. Aluminum Co. of Am. v. National Marine Fisheries Serv., 92 F.3d 902 (9th Cir.1996). We disagreed, holding that the BRWG and AWG were not groups "formed by, at the prompting of, or solely for" the federal government, but rather were created "for the purpose of aiding compliance with the district court's order." Id. at 905. In the action now before us, the DSIs renew their complaints about the BRWG and AWG. Their arguments about the allegedly secret procedure used for recovery planning are specific to NMFS, which is not a party to this action, and are therefore not properly before us.

In January 1995, following a coordinated effort, NMFS and the U.S. Fish and Wildlife Service (the "FWS") issued separate draft BiOps concerning FCRPS operations, and solicited comments. In

February 1995, the BPA, along with several other entities, submitted written comments and participated in meetings regarding the draft BiOps. This joint effort culminated in March 1995 with NMFS's issuance of its final 1995 BiOp, in which it recommended a multi-part RPA for avoiding jeopardy. The RPA consisted of immediate and intermediate/long term actions, including plans for further study.

The Corps and the Bureau formally adopted the 1995 BiOp shortly after its issuance. At the same time, the BPA issued the 1995 ROD, documenting its "decision to participate with [the Corps] and [the Bureau] to operate the Federal Columbia River Power System ... for 1995 and future years consistent with these alternatives [suggested by NMFS and the FWS [FN5]] and the measures in the incidental take statements." The DSIs now petition for review of the BPA's 1995 ROD.

> FN5. The DSIs have raised no issues involving the FWS's BiOp or its adoption by the BPA.

II. Scope and Standard of Review

[1] The DSIs advance arguments targeted at both NMFS's actions in preparing the 1995 BiOp and the BPA's decision to adopt NMFS's "jeopardy" finding and RPA. The former claims, at least as they challenge the analysis of NMFS, which is not a party to this action, are beyond the scope of our review on a petition under 16 U.S.C. § 839f(e)(5). On similar procedural facts, we previously held that attacks on the consulting agency's actions "misse[d] the mark." Pyramid Lake Paiute Tribe of Indians v. United States Dep't of the Navy, 898 F.2d 1410, 1415 (9th Cir.1990). In Pyramid Lake, an Indian tribe challenged a BiOp adopted by the Department of the Navy but issued by the FWS, which was not a party to the action. We refused to consider whether the FWS had in any way violated the Endangered Species Act, stating:

> The Tribe argues at length that the FWS's biological opinions which contain the "no jeopardy" findings are based on faulty analysis.... The Tribe's argument misses the mark, however, because the FWS is not a party to this action. The FWS's actions, or lack thereof, in preparing its opinions are relevant on appeal only to the extent that they demonstrate whether the

Navy's reliance on the reports is "arbitrary and capricious." Id.

[2] The DSIs' other challenge, involving the BPA's 1995 ROD, presents a threshold question concerning the extent to which a federal action agency may rely on a consulting agency's finding of jeopardy under the Endangered Species Act. The DSIs urge us to set aside the 1995 ROD on grounds that the BPA should have conducted an independent analysis and concluded that the operation of the FCRPS did not jeopardize the continued existence of the listed salmon. This approach is antithetical to our established standards of review.

[3][4] The Administrative Procedure Act ("APA") governs judicial review of administrative decisions involving the Endangered Species Act. Pyramid Lake, 898 F.2d at 1414. Likewise, the APA applies to judicial review of final actions of the BPA Administrator. 16 U.S .C. § 839f(e)(2). Under the APA, we have authority to "hold unlawful and set aside agency action ... found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Our review under this standard is narrow and we cannot substitute our judgment for that of the agency, particularly when "the challenged decision implicates substantial agency expertise." *1161 Mt. Graham Red Squirrel v. Espy, 986 F.2d 1568, 1571 (9th Cir.1993).

We have previously addressed situations in which a consulting agency has issued a "no jeopardy" opinion and the action agency has adopted it. Although no bright line emerges from those cases, we have concluded that an action agency may not escape its responsibility under the Endangered Species Act by simply rubber stamping the consulting agency's analysis. See Resources Ltd., Inc. v. Robertson, 35 F.3d 1300, 1304 (9th Cir.1994); Pyramid Lake, 898 F.2d at 1415 ("A federal agency cannot abrogate its responsibility to ensure that its actions will not jeopardize a listed species...."). On the other hand, we have held that an action agency need not undertake a separate, independent analysis in the absence of new information not considered by the consulting agency in reaching its "no jeopardy" conclusion. See Stop H-3 Ass'n v. Dole, 740 F.2d 1442, 1460 (9th Cir.1984). Finally, we

have upheld an action agency's adoption of a "no jeopardy" finding even when based on admittedly "weak" best available evidence. See Greenpeace Action v. Franklin, 14 F.3d 1324, 1336 (9th Cir.1993).

In contrast, we now face a situation in which the consulting agency has issued a "jeopardy" finding. In consideringthe nature of our review of the action agency's adoption of the "jeopardy" determination, we are guided by the Supreme Court's decision in Bennett v. Spear, 520 U.S. 154, 117 S.Ct. 1154, 137 L.Ed.2d 281 (1997). In Bennett, the Court observed that when a consulting agency issues a "jeopardy" opinion, its decision has a "powerful coercive effect." Id. at 169. The Court warned that an action agency disregards a "jeopardy" finding "at its own peril," and bears the burden of articulating in its administrative record the reasons for reaching the opposite result. Id. at 169-70. Acknowledging the expertise of a consulting agency, the Court explained that an action agency "runs a substantial risk if its (inexpert) reasons turn out to be wrong.... for 'any persona' [including an agency employee] who knowingly 'takes' an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment." Id. (citing 16 U.S.C. § 1540).

In light of the action agency's obligations and risks as underscored by the Supreme Court, we decline the DSIs' invitation to scrutinize the BPA's adoption of NMFS's "jeopardy" finding more critically than we would an action agency's reliance on a consulting agency's "no jeopardy" opinion. To the extent the DSIs seek to impose on the adoption of a "jeopardy" determination a higher evidentiary burden than that applied with respect to a "no jeopardy" finding, such attempt is contrary to the purposes and spirit of the Endangered Species Act. See 16 U.S.C. §§ 1531(a)(3), (b), & (c). Likewise, we will not require that an action agency reinvent the wheel and conduct an independent jeopardy analysis when nothing more is offered than evidence and arguments already considered by the consulting agency. Review under the APA's arbitrary and capricious standard is well developed in our precedent and we see no reason to refine it further here.

III. Review of the BPA's 1995 ROD

The DSIs argue that the 1995 ROD does not pass muster under the APA because the "jeopardy" finding is not supported by appropriate data and is based on a flawed standard. Neither argument has merit. Similarly, the applicable statutes do not support the DSIs' contention that the BPA's adoption of NMFS's suggested RPA contravenes its obligation to provide economical power.

A. The "Jeopardy" Finding and the RPA

[5] We view the DSIs' challenges as reflecting primarily a difference of opinion among experts concerning the cause of the listed species' decline and the appropriate methods for improving their chances for survival. As the BPA itself recognized, "there are different views among scientists *1162 regarding what measures are most appropriate to benefit listed salmon." Such disagreement does not establish a lack of adequate foundation for the conclusions reached in the 1995 BiOp or the BPA's decision to adopt it. See Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 378, 109 S.Ct. 1851, 104 L.Ed.2d 377 (1989) ("When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive.").

While cloaking their challenge in terms of the obligation to use "the best scientific and commercial data available," the DSIs' arguments are essentially an effort to rehash the multi-year scientific debate that culminated in the adoption of the 1995 BiOp. Two examples underscore this point. First, the DSIs express dissatisfaction with the proposal to increase flow, employ spill, and reduce transportation, raising oft-repeated concerns about spill-related disease in the fish, and accusing NMFS of ignoring data demonstrating the efficacy of smolt transportation. Far from disregarding relevant scientific information, however, NMFS engaged in a detailed analysis of these issues and weighed the available data.

Second, the DSIs take issue with the choice NMFS made between competing computer models, but again, the DSIs do no more than

present a dispute previously resolved by the expert agency. In fact, the DSIs' complaint appears unfounded because NMFS expressly placed "greater weight" on the results of the Columbia River Salmon Passage ("CRiSP") computer model preferred by the DSIs. The BPA separately documented its analysis of the computer modeling and biological data, and ultimately concluded that the CRISP model coupled with another model provided the best available quantitative assessment of the factors affecting juvenile survival and long-term population trends of the listed species.

[6] Although the BPA itself quarreled with some of NMFS's conclusions, in the end, the BPA determined that NMFS's overall approach, which emphasized further research and monitoring, was reasonable and responsible. The DSIs now invite us to second-guess the BPA's final decision. We decline to do so. Rather, on this record, which reflects scientific uncertainty and differing scientific views resolved in part by expert choices and in part by commitments for further study, we cannot say the BPA acted arbitrarily, capriciously, or contrary to law in adopting NMFS's "jeopardy" finding [FN6] or multi-part RPA. See Southwest Ctr. for Biological Diversity v. United States Bureau of Reclamation, 143 F.3d 515, 523 (9th Cir.1998) ("The Secretary was not even required to pick the best alternative or the one that would most effectively protect the [listed species] from jeopardy.").

> FN6. We are unpersuaded by the DSIs' argument that NMFS applied a flawed jeopardy standard. NMFS correctly stated the statutory standard and appropriately considered the effect of future FCRPS operations within the context of other existing human activities that impact the listed species, including incidental harvesting. See 50 C.F.R. § 402.02 ("The environmental baseline includes the past and present impacts of all ... other human activities in the action area...."). In addition, NMFS correctly viewed incremental improvements as insufficient to avoid jeopardy in light of the already vulnerable status of the listed species. We agree with NMFS that the regulatory definition of jeopardy, i.e., an appreciable reduction in the

likelihood of both survival and recovery, 50 C.F.R. § 402.02, does not mean that an action agency can "stay the course" just because doing so has been shown slightly less harmful to the listed species than previous operations. Here, the species already stands on the brink of extinction, and the incremental improvements pale in comparison to the requirements for survival and recovery. Finally, we find no fault with the method in which NMFS included in the jeopardy calculus the listed species' potential for recovery.

B. Balancing Economic Interests

[7] The DSIs also assert that the BPA failed to balance appropriately its obligations ***1163** under the Endangered Species Act against the Northwest Power Act's directive to "assure the Pacific Northwest of an adequate, efficient, economical, and reliable power supply." 16 U.S.C. § 839(2). The Northwest Power Act's goal of providing economical power, however, does not supplant the BPA's obligation to comply with environmental mandates. We previously examined the history of the Northwest Power Act and identified several "innovations" that must enter into the BPA's calculus, including: (i) requiring consistent construction with other statutes "specifically including environmental laws"; (ii) shifting the focus in wildlife mitigation from "merely creating substitute resources, such as salmon hatcheries, to emphasizing changes in hydro project operations"; (iii) lowering the burden of proof for undertaking remedial action by requiring only the "best available scientific knowledge" rather than "scientific certainty"; and (iv) favoring "biological outcomes over economic ones." Northwest Resource, 35 F.3d at 1378.

In addition, the DSIs' argument ignores the imperative nature of the Endangered Species Act. See 16 U.S.C. § 1536(a)(2) ("Each Federal agency shall ... insure that any action ... is not likely to jeopardize...." (emphasis added)). Contrary to the DSIs' contention, the BPA cannot disregard its duties under the Endangered Species Act. Given the factors it must weigh, the BPA cannot be said to have struck an improper balance between salmon and economical hydropower.

IV. Environmental Impact Statement

[8][9] The DSIs contend that the BPA violated the National Environmental Policy Act 5 ("NEPA") by failing to prepare an environmental impact statement ("EIS") before issuing the 1995 ROD. [FN7] The BPA responds that the final EIS issued by the Corps, the Bureau, and the BPA in November 1995 renders the DSIs' claim moot. The BPA is correct. An action is moot if "no actual or live controversy exists," for example, when we cannot grant effective relief. Cook Inlet Treaty Tribes v. Shalala, 166 F.3d 986, 989 (9th Cir.1999). The DSIs' complaints are stale because a final EIS was prepared and we can grant no relief that would "undo" the operation of the FCRPS during the period between issuance of the 1995 ROD and the final EIS. [FN8]

> FN7. NEPA mandates that all federal agencies "include in every recommendation or report on proposals for ... major Federal actions significantly affecting the quality of the human environment, a detailed statement ... on the environmental impact of the proposed action." 42 U.S.C. § 4332(2)(C)(i).
>
> FN8. The DSIs assert in their reply brief that their claims are not moot because the alleged problems with an earlier EIS were carried over to the final EIS. The DSIs inappropriately raise a new argument in their reply. See Martinez-Serrano v. INS, 94 F.3d 1256, 1259 (9th Cir.1996), cert. denied, --- U.S. ----, 118 S.Ct. 49, 139 L.Ed.2d 15 (1997).

The petition for review is DENIED.

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UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

ALUMINUM COMPANY OF AMERICA, et al.,	)	No. 95-70480
Petitioners,	)	
vs.	)	ORDER
BONNEVILLE POWER ADMINISTRATION,	)	
Respondent.	)	

Petitioners' motion to complete and supplement the record is referred to the merits panel for disposition.

FOR THE COURT:

/S/ David E. Lombardi, Jr.

David E. Lombardi, Jr.

Chief Court Mediator

NOT FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

ALUMINUM COMPANY OF AMERICA, COLUMBIA ALUMINUM CORPORATION, COLUMBIA FALLS ALUMINUM COMPANY, ELF ATOCHEM NORTH AMERICA, INC., INTALCO ALUMINUM CORPORATION, KAISER ALUMINUM & CHEMICAL CORPORATION, NORTHWEST ALUMINUM COMPANY, REYNOLDS METALS COMPANY, and VANALCO, INC.,	)	No. 95-70480
Petitioners,	)	
vs.	)	
ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION,	)	ORDER
Respondent.	)	

BEFORE: LEAVY, McKEOWN, and WARDLAW, Circuit Judges.

The Court grants in part, and denies in part, the petitioners' motion to complete and supplement the record. The request to treat the three affidavits submitted to the district court in Idaho Dep't of Fish & Game v. National Marine Fisheries Serv., 850 F. Supp. 886 (D.Or. 1994), as part of the administrative record is granted. The petitioners' motion is denied in all other respects.

The respondent's request for leave to file the 1995 Columbia

River Systems Operations Review Final Environmental Impact Statement, including the two additional pages provided by the petitioners, and the 1997 Record of Decision issued thereon is granted.

ENDANGERED SPECIES ACT

RECORD OF DECISION

Regarding

BIOLOGICAL OPINIONS

by the

NATIONAL MARINE FISHERIES SERVICE

and

US FISH AND WILDLIFE SERVICE

on

OPERATION

of the

FEDERAL COLUMBIA RIVER POWER SYSTEM

in

1995 AND FUTURE YEARS

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RECORD OF DECISION

I. INTRODUCTION

A. DESCRIPTION OF THE ACTION

The Bonneville Power Administration (BPA), the Army Corps of Engineers (COE), and the Bureau of Reclamation (BOR) coordinate operation of the FCRPS. The FCRPS consists of the various Federal hydroelectric projects in the Columbia and Snake Rivers. Operation of the FCRPS entails coordinated operation of these projects, including developments and implementation of various agreements used to plan for operation of the FCRPS, to actually operate the FCRPS, and to coordinate operations with Canada and utilities in the Pacific Northwest. Examples include: (1) implementation of the Columbia River Treaty (Treaty) between the United States and Canada, such as by adoption of assured operating plans and detailed operating plants, (2) arrangements with Canada for Non-treaty storage, and (3) renewing and revising the Pacific Northwest Coordination Agreement.

B. ENDANGERED SPECIES ACT RESPONSIBILITIES

Pursuant to the Endangered Species Act (ESA), National Marine Fisheries Service (NMFS) and Fish and Wildlife Service (FWS) have listed several species potentially affected by operation of the FCRPS. NMFS has listed Snake River sockeye, Snake River spring/summer chinook, and Snake River fall chinook as endangered species. FWS has listed four Snake River snail species, Kootenai River white strugeon, the grey wolf, and peregrine falcon as endangered species, and one Snake River snail species, the grizzly bear and Pacific Northwest bald eagle population and threatened species.

The ESA requires Federal agencies, in consultation with NMFS and FWS, to insure that their actions are not likely to jeopardize the continued existence of listed species and to utilize their authorities to further the proposes of the ESA by carrying out

programs for the conservation, or recovery, of listed species.[1] The ESA also proscribes take of these species, unless such take is consistent with an incidental take statement or permit issued by NMFS or FWS.[2]

C. Process Leading to New NMFS B.O.

1. Reconsideration of NMFS 1994-1998 B.O

In Idaho Department of Fish and Game v. NMFS, Civ. No. 92-973-MA (Lead Case) and consolidated cases (D.Or.), the Idaho Department of Fish and Game, State of Oregon and four treaty Indian tribes challenged the legal adequacy of NMFS' 1993 B.O. on FCRPS operations. In an opinion dated March 28, 1994, Federal District Court Judge march set aside the 1993 B.O. and instructed the Federal defendants to review and reconsider it. Because the period covered by the 1993 B.O had passed, and NMFS had just issued a new B.O. for the years 1994-1998, the Federal defendants chose, wtht he court's approval, to review and reconsider the 1994-1998 B.O. instead.

2. Extensive Consideration of State, Tribal, and Other Views

The Federal defendants futher chose to engage in an extensive process of meetings and discussions with Federal, State, tribal and non-governmental participants in the Idaho Dept. of Fish and Game v. NMFS litigation to consider and develop new information and approaches for avoiding jeopardy to the listed fish and for facilitating their recovery. A list of these participants follows.

Federal	States	Tribes	Utilities & Industries
NMFS	Alaska	Colville Confederated Tribes	Aluminum Co. of America
FWS	Idaho	Makah Tribe	Elf Atochem North America

---

[1] 16 U.S.C. § 1536(a).
[2] 16 U.S.C. §§1536(o), 1538, 1539.

COE	Oregon	Nez Perce Tribe	Columbia Falls Aluminum Co.
BOR	Montana	Quinault Indian Nation	Kaiser Aluminum & Chemical Corp.
BPA	Washington	Umatilla Tribes	Intalco Aluminum Co
Dept of Commerce		Warm Springs Tribe	Northwest Aluminum Co.
Dept of the Interior		Yakima Nation	Oregon Metallurgical Corps.
			Reynolds Metals Co.
			Intermountain Forest Industries Association

Environmental Groups

American Rivers	Federation of Fly Fishers	Oregon Natural Resources Council
Boulder-White Clouds Council	Idaho Rivers United	Salmon for All
Coalition for Idaho Water	Idaho Salmon & Steelhead United	Sawtooth Wildlife Council
	Northwest Resource Information Center	

Meetings and discussions with Idaho v. NMFS participants began in June 1994 and continued into January 1995. Participants engaged in additional studies, review of models and methodologies to analyze impacts of activities upon fish, identification of

scenarios to analyze with models, analyses of scenarios with the models, additional analyses, and reports on biological parameters and possible actions. On December 15, 1994, prior to continuing formal consultation on FCRPS operations, the action agencies submitted to NMFS a supplemental biological assessment on FCRPS operations and made it available to the public.

On January 25, 1995, NMFS issued a draft biological opinion for 1995 and future years and solicited written comments on the draft from the Idaho v. NMFS participants by February 10, 1995. In addition to receiving written comments, later in February, NMFS met with various groups to hear their oral comments.

These meetings and discussion are more fully described in NMFS B.O. for 1995 and future years and in the Federal Defendants' reports to the court.

3. Consultation

While considering the views of states, tribes and non-governmental participants in the Idaho v. NMFS litigation, NMFS and the FCRPS action agencies renewed formal consultation on FCRPS operations. On December 15, 1994, the FCRPS action agencies submitted to NMFS a supplement to their 1994-1998 Biological Assessment (B.A.). The supplement to the B.A. addressed future operation of the FCRPS and potential impacts upon listed species. The action agencies also made this document available to the public.

Beginning in mid-January, NMFS and the action agencies engaged in a series of meetings, discussions, review of opinions and information provided by Idaho v. NMFS participants, and exchanges of information. NMFS and the action agencies considered various possible actions to avoid jeopardy to fish and further enable their recovery.

To provide an additional opportunity for consideration of all viewpoints, NMFS solicited comment on its January 25, 1995, draft B.O from Idaho v. NMFS participants. By February 10, 1995, BPA and other entities submitted comments.

Formal consultation culminated with issuance by NMFS of a final B.O on March 2, 1995.

4. 4. NMFS Final B.O.

On March 2, 1995, NMFS issued its final B.O. regarding operation of the FCRPS and Juvenile transportation Program in 1995 and Future Years (1995+ B.O.). The B.O. recommends an alternative for avoiding jeopardy.

D. Process Leading to New FWS B.O.

1. Reconsultation on FWS 1994-1998 B.O.

The FWS B.O. was not challenged in the Idaho v. NMFS litigation. However, because the FCRPS is operated as an integrated system, any modifications to system operations resulting from the reconsultation on FCRPS operations with NMFS needed to be coordinated with the needs of species listed by the FWS. In addition, the Kootenai River white sturgreon which ahd been proposed for listing when the FWS issued its B.O./Conference Opinion on 1994-1998 FCRPS Operations on July 27, 1994, had been listed as an endangered species on Spetmeber 6, 1994[3], thereby necessitating a B.O.

On December 15, 1994, the FCRPS action agencies submitted a supplement to their 1994-1998 B.A. to FWS. The Supplemental B.A. addressed future operation of the FCRPS and potential impacts upon listed species. In order to fully integrate the FWS reconsultation with the NMFS consultation process described above, the action agencies also made this document available to the public.

Beginning in mid-December, FWS and the action agencies formally consulted by engaging in a series of meetings and exchanges of information. NMFS participated in some of the meetings to enable analysis of the impacts of various actions to be coordinated between FWS and NMFS. FWS and the action agencies considered how the proposal to operate the FCRPS as described in the Supplemental B.A.. could avoid jeopardy to the Kootenai river white sturgeon and Snake River snails. To provide an additional opportunity for consideration of other viewpoints, FWS solicited comment on its January 25, 1995, draft B.O. from

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[3] 59 Fed. Reg. 45989.

affected State management agencies. FWS issued its final B.O. on March 2, 1995. The new B.O. addressed the effects of FCRPS operations in 1995 and future years on four species of Snake River snails and the Kootenai River white sturgeon.

2. Effects on Other Species.

The July 27, 1994, B.O. on the effects of FCRPS operations on bald eagles remains in effect. FWS concurred with the conclusion of the action agencies that the proposed action is not likely to adversely affect the gray wolf, grizzly bear or pregrine falcon, and will have no effect on the Banbury Springs lanx (a listed Snake River snail).

E. Environmental Impact Analyses

Since NMFS listed species of salmon in 1991 and 1992, and FWS listed the Snake River snails in 1992 and the Kootenai River white sturgeon in 1994, the action agencies have conducted environmental analyses of the impacts of FCRPS operations. The action agencies performed these analyses in accordance with the national Environmental Policy Act (NEPA).

In 1992 the action agencies issued a final Columbia River Salmon Flow Measures Options Analysis/Environmental Impact Statement. This EIS addressed flow improvement measures that could be implemented in 1992. In 1993 the action agencies produced the final Columbia and Snake Rivers Flow Improvement Measures for Salmon Supplemental Environmental Impact Statement (SEIS). This SEIS evaluated water management actions implementable in 1993 and subsequent years.

The action agencies are no completing their Columbia River System Operation Review (SOR), an environmental analysis of a wide range of possible longer-term changes in operations of the FCRPS. The action agencies issued a draft SOR EIS in July 1994 and plan to issue the final SOR EIS in the summer of 1995.

The COE is also conducting the Columbia River System Configuration Study, a long-term study of structural alternatives to improve salmon migration conditions. Options under analysis include drawdown of the four lower Snake River reservoirs.

II. RECOMMENDATIONS OF NMFS AND FWS BIOLOGICAL OPINIONS

A. NMFS Biological Opinion

The NMFS B.O. on FCRPS Operations for 1995 concluded that operation of the FCRPS for the remainder of the 1994-1998 B.O., without additional activities consistent with NMFS' proposed Recovery Plan and provision for longer-term changes, failed to avoid jeopardy to the listed species.[4] To avoid jeopardy, NMFS recommended a comprehensive alternative.[5] The alternative includes immediate and intermediate term actions to improve survival as well as immediate research, evaluation and enginnering studies to improve survival in the intermediate and long term.

The immediate actions to improve in-river survival include increases in flows and spill, lowering of the lower Snake River reservoirs to near minimum operating pool, and lowering of John day reservoir to near minimum irrigation pool. The intermediate term actions to improve survival include improvements in juvenile bypass systems and gas abatement programs.

The alternative emphasizes research, evaluation and engineering studies to improve survival in the intermediate and long term during the migration of fish. The alternative delineates a process for using information gathered from these studies to select one of three major long term changes to the FCRPS: (1) passage improvements at dams, such as surface collectors, that significantly improve bypass and/or collection efficiency, (2) a spillway crest drawdown at the lower Snake River projects, or (3) a natural river drawdown at the lower Snake River projects.

B. FWS Biological Opinion

The FWS B.O. describes operations to regulate flows at Libby Dam for 1995 and 1996-1998. Regulation of flows is to be consistent with existing treaties and laws.[6] Operations for 1995 are

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[4] 1995+ B.O. at Part VIII.

[5] 1995+ B.O. at Part VIII.

[6] BPA notes that the Government of Canada, by Diplomatic Note of January 12, 1995, has objected to operation of Libby Dam to provide

more limited than those described for 1996-1998 due to time required to repair a turbine at the dam. Monitoring and evaluation activities to monitor sturgeon movements, spawning, egg deposition, fry production and recruitment are set forth in the measures, terms and conditions of the incidental take statement.

III. DECISIONS

The Biological Opinions issued March 2, 1995 by NMFS and FWS recommend implementation of alternatives for avoiding jeopardy and implementation of measures in incidental take statements. This Record of Decision (ROD) documents BPA's decision to participate with the COE and BOR to operate the Federal Columbia River Power System (FCRPS) for 1995 and future years consistent with these alternatives and the measures in the incidental take statements. BPA makes this decision in order to satisfy its responsibilities under the ESA consistent with its authorities and responsibilities under other statutes and applicable law. The source of BPA's authority is the Pacific Northwest Power Planning and Conservation Act and related enabling statutes. This ROD constitutes a final action of the BPA Administrator taken pursuant to the Northwest Power Act.

In addition to recommending immediate and intermediate actions to benefit listed salmon, the NMFS B.O. delineates a process of study, monitoring and evaluation leading to selecting longer-term options for FCRPS operations.[7] BPA's objective is to select one of the options identified by the B.O., subject to timely consideration in the SOR and other environmental processes.[8]

IV. CHANGES FROM "STATUS QUO'

The FCRPS operations to be implemented pursuant to this decision substantially change operation of the reservoirs in the FCRPS compared to prior biological opinions, and especially compared to operations prior to the listing of Snake River sockeye in 1991. The

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flows for fish during the May – June period and has requested Consultations with the United States pursuant to Article XII of the Columbia River Treaty.

[7] See Part II.A of this ROD.

[8] See part I.E of this ROD.

action agencies have continuously increased their commitment in terms of flow augmentation, spill, drafting of reservoirs, structural changes, and research, monitoring, and evaluation. The matrix entitled "Comparison of Measures in the 1992 Biological Opinion, 1993 Biological Opinion, 1994-1998 Biological Opinion and 1995 Biological Opinion" summarizes changes in FCRPS operations under successive biological opinions.[9]

These changes have caused BPA to incur tremendous costs both in terms of expenditures and in lost revenues. The table entitled "1995 Biological Opinion Costs to BPA" estimates these costs.[10]

V. RATIONALE FOR DECISION RESPECTING NMFS B.O.

A. Resolution of Uncertainties and Different Views

BPA recognizes, and the record demonstrates, that there are different views among scientists regarding what measures are most appropriate to benefit listed salmon. As described above, the action and consulting agencies engaged in extensive discussions, meetings, and review of information with scientists and representatives expressing the full spectrum of opinions. As expressed in this ROD, and based upon its biological analyses and review of the science, BPA believes a different set of actions could more effectively satisfy responsibilities under the ESA. However, the actions in NMFS' alternative provide benefits to fish that can enable these fish to reach survival levels and maintain the potential for recovery. In addition, by emphasizing research, monitoring, and evaluation, NMFS provides a responsible approach for better ascertaining benefits to the listed species, reducing uncertainties, and resolving different views. BPA agrees that this analysis over the next few years is essential to reasoned decisionmaking on longer term operations and structural changes. NMFS' alternative, therefore, is a reasonable one for avoiding jeopardy to and facilitating recovery of the listed salmon species.

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[9] See Appendix A.

[10] See Appendix B. BPA based these estimates on information available as of February 28, 1995, and expects to refine them as it studies the final NMFS 1995+ B.O. issued on March 2, 1995.

B. Collective and Interdependent Effort to Reach Survival Escapement Levels

Improved spawning escapements of the listed fish are heavily dependent upon improvements by all actions affecting any of the various stages of the species' life cycles (habitat, hydro, hatcheries, and harvest). As long as a species is below levels needed for survival, improved benefits to the listed fish by all actions is critical to avoiding jeopardy. NMFS recognizes this interrelationship by calling for consistency by all actions with its proposed recovery plan.

C. Summary of Biological Analyses

BPA's own analysis shows that the improvements possible under NMFS' alternative, together with improvements by other actions affecting the listed species, are sufficient to enable positive trends in spawning escapement.

1. Biological Modeling

A wide array of operational alternatives identified through the Idaho v. NMFS settlement negotiations and additional consultations with NMFS on future FCRPS operations were analyzed relative to fish survival and recovery with the Columbia River Salmon Passage Model (CRiSP) and the Stochastic Life Cycle Model (SLCM). The CriSP model provides estimates of juvenile passage survival and was developed by the Center for Quantitative Science, University of Washington. The SLCM provides estimates of spawning escapement trends and was developed by Dr. Danny lee (U.S. Forest Service, Inter-mountain Research Station, Forestry Sciences Laboratory, Boise, Idaho) and Dr. Jeffrey Hyman (Quality of the Environment Division, Resources for the Future, Washington, DC). Together these models provide a quantitative assessment of the many actions and environmental factors that combine to affect the juvenile survival and long-term population trends of the ESA listed Snake River salmon stocks. Our review of regional analytical tools has found these models to be the best available and the only models available with adequate documentation and public access. The data used in these model analyses are also believed to be the best currently available. NMFS's review of the stimulation capabilities of the

regional passage models and available research for spring chinook showed that the CriSP model resultes should be given more weight than the state and Tribal model results.

A more detailed documentation of the models, the biological data, and the modeling analyses performed for this assessment is provided in a separate document entitled "Biological Modeling Analyses of Alternatives Considered in The Record of Decision on Endangered Species Act Biological Opinions on Operation of the Federal Columbia River Power System", BPA 1995. Additional information on the modeling analyses provided to NMFS during consultations is documented in "Life-Cycle and Passage Model Analyses Considered in Evaluating Effects of the Actions During Reinitiation of Consultation on the Biological Opinion on 1994-19998 Operation of the Federal Columbia River Power System", NMFS 1995. Documentation for the CriSP and SLCM models is provided in "Columbia River Salmon passage Model, CriSP 1, Documentation for Version 5" Anderson et al 1995 and "SLCM: A Tool For Simulating The Population Dynamics of Anadromous Salmonids" Lee and Hyman 1992.

The results of this assessment show that both the 1994-98 BO Operations and the 1995 NMFS Draft BO – Option 1 alternatives[11], which provide a combination of additional flow augmentation, spill, modifications to fish bypass systems, and improvements in fish transportation, can result in major improvements in juvenile fish survival. Both of these alternatives provide approximately the same levels of survival improvements which were significantly higher than all other alternatives analyzed. The average juvenile survival in the years 1995 and 2003 increases by approximately 25 and 50 percent respectively for spring chinook and 90 and 190 percent respectively for fall chinook relative to the average survival during the environmental baseline years of 1975 through 1993. These juvenile passage improvements in combination with some minor changes in habitat, hatchery, and harvest impacts show substantial increases in spawning escapement trends toward recovery levels and increasing probabilities of being above critically low population levels for the

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[11] NMFS 1995+ B.O. at part VIII.B; NMFS 1994-1998 B.O.

Snake River spring, summer and fall chinook ESUs and the majority of the spring and summer chinook indicator stocks. Although sockeye were not explicitly analyzed in this assessment, they would be expected to have similar juvenile survival improvements as those projected for spring chinook.

This assessment found substantially lower survival improvements for reservoir drawdown alternatives such as the 1995 BO – Options 2 and 3.[12] In many cases these options resulted in even lower survival levels than the environmental baseline conditions. In addition to low survivals and population trends, these drawdown options also showed the potential for catastrophic adverse impacts to the listed stocks.

The assessment of alternatives also shows that measures that reduce fish transportation levels such as increasing spill at fish transportation projects and elimination of transportation at McNary are likely to reduce juvenile survival. The existing biological data and modeling analyses supports continued and expanded levels of fish transportation. Monitoring and evaluation efforts should help clarify uncertainty regarding the most effective fish passage routes. BPA believes that Option 1 in NMFS' alternative should include consideration of increased levels of transportation at all existing projects, the addition of transportation at other projects, and transportation to the estuary.

2. Additional Beneficial Actions

In addition to the actions modeled, BPA provides funding for a wide array of actions contained in the NPPC's Columbia River Basin Fish and Wildlife Program. Other activities by BPA, the action agencies and others continue to provide improvement for fish passage and survival. Funded under the Council's Program are projects such as spawning habitat improvement, application of fish disease research, and supplementation. BPA and others are also working to benefit the listed populations through the inseason management process, optimizing river operations for timing of active fish movement, turbine peak efficiency and facility improvement measures such as fish ladder temperature control.

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[12] NMFS 1995+ B.O. at part VIII.B.

Benefit quantification for these activities is inexact, but BPA and the region, through the Council's Implementation Planning Process, believes benefits are realized by the weak and listed salmonid populations.

The NMFS proposed framework for adaptive management and monitoring and evaluation will help the region quantify benefits for some of these activities, while others will remain unevaluated. We continue to support a strong, objective adaptive management program based on sound science.

3. Biological Analysis Conclusions

BPA concludes that the alternative described in the NMFS B.O. avoids jeopardy to and facilitates the recovery of listed salmon based on the substantial improvements in juvenile survival and increasing population trends. This conclusion is further supported by the significant number of recovery measures that were not included in the modeling analyses making this a conservative assessment. In addition, the emphasis on monitoring and evaluation sets a framework for continuing to improve the effectiveness of operational alternatives and helps insure that we make informed adaptive management decisions if additional measures ar erequired in the future.

BPA also concludes that NMFS' alternative avoids the destruction or adverse modification of critical habitat. The analysis of whether an action jeopardizes listed species is almost identical to the analysis of whether the action adversely modifies or destroyes critical habitat.[13] During the processes leading to NMFS' final B.O., NMFS and the action agencies have considered the impacts of the alternative upon features of habitat. Their analysis of impacts upon the survival of the listed fish necessarily encompassed evaluation of impacts upon critical habitat.

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[13] See the regulatory definitions of "jeopardize the continued existence of" ("reduce appreciably the likelihood of both the survival and recovery of a listed species") and "destruction or adverse modification" ("appreciably diminshes the value of critical habitat for both the survival and recovery of a listed species") at 50 C.F.R. § 402.02.

D. Issues Warranting Study, Monitoring and Evaluation

Adaptive management directed by monitoring and evalution forms the basis for avoiding jeopardy and achieving recovery of the listed Snake River salmon. A comprehensive life cycle ecosystem approach with a succinct decision protocol is essential for answering the critical uncertainties within the FCRPS estuary, near shore ocean and the ocean encompassing the adult range of the listed salmon. With this information the region can make the resource allocation decisions needed to best advantage the listed populations.

The NMFS BO and Draft Recovery Plan contain the framework necessary to avoid jeopardy to the listed species, promote their recovery, and base decisions upon the best available science. Although there has been much study of Snake River salmon, the species are extremely complex, and the data regarding the effects and benefits to these species is limited. Immediate concerns exist over spill and resulting gas supersaturation and its effect on fish, reservoir drawdowns that may not achieve survival improvements and limitation of transportation at McNary Dam which may decrease survival of upstream Columbia River populations.

We understand that these and other issues will be addressed by the monitoring and evaluation (M&E) and adaptive management framework provided by NMFS. The research and availability of fish for sampling should be given the highest priority so that the region can make the best decisions on the benefits of these often costly measures.

The M&E and evaluation stressed in the NMFS B.O. is also critical to determining the effectiveness of the following costly operational measures.

- Flow augmentation releases could be more effectively utilized by timing the releases coincedent with significant juvenile outmigrations. Such operations would conserve storage in low water years to provide more augmentation for summer (especially August) migrants. The opinion specifies refilling the Lower Granite pool above minimum operating pool (MOP) after November 15. Yet, it is believed that the juvenile outmigration and adult migration

are completed by the end of October. Thus, through M&E the migration timing con be confirmed and unnecessary and costly Lower Granite MOP operations can be avoided.

- Similarly, M&E can confirm the effectiveness of perating the John Day pool within a one-and-a-half foot range of minimum irrigation pool (MIP).[14] Operating John Day within this very narrow range will be a difficult operation, and may often be impossible, due to wind effects, rapid streamflow changes, and changes in spill. With M&E actual pool survival improvement could be measured, and the benefits weighed against hydro system operations flexibility.

- Further monitoring and evaluation are warranted to determine the effectiveness of operating turbines within 1% peak efficiency during adult migration. Through comprehensive monitoring and evaluation millions of dollars and millions of acre-feet of water could potentially be redirected to more optimal measures.

BPA raised additional issues in its comments on NMFS draft B.O. dated January 25, 1995.[15]

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[14] The provision regarding John Day anticipates economic mitigation from some source. However, funding for such mitigation must come from a source other than BPA: BPA lacks authority to provide such economic mitigation. August 12, 1992, Memorandum from Harvard P. Spigal, General Counsel, to Randall W. Hardy, Administrator, entitled "Legal Authority of the Bonneville Power Administrator to Fund Economic Mitigation Measures"; March 9, 1995, Memorandum from James O. Luce, Assistant General Counsel, and Philip S. Key, Attorney to R. Hardy, Administrator, entitled "Legal Authority to Fund the Extension of Pumping Facilities in the John Day Pool".

[15] Comments by the Bonneville Power Administration on the January 25, 1995, Draft Biological Opinion by the National marine Fisheries Service on Operations of the Federal Columbia River Power System for 1995 and Future Years, submitted to NMFS with a February 10, 1995, letter from Judith Johansen to William Stelle and Michael Spear.

VI. RATIONALE FOR DECISION RESPECTING FWS B.O.

A. SNAKE RIVER SNAILS

BPA is not now involved in operational decisions on the upper and middle Snake River and therefore has not consulted with FWS on a proposed BPA action. If BPA later actively participates in operational decisions on the middle and upper Snake River, BPA expects to consult with FWS. BPA's involvement in snail consultation and level of participation in operational decisions in the Snake River will determine BPA's level of involvement in further snail research or assessments.

B. 1995 AND FUTURE YEARS OPERATIONS AVOIDS JEOPARDY TO KOOTENAI RIVER WHITE STURGEON

The FWS B.O. describes specific operations of Libby Dam as a reasonable and prudent alternative to the proposed action and monitoring and evaluation as measures, terms and conditions of an incidental take statement. It is BPA's opinion that implementation of these operations and performance of the described monitoring and evaluation will avoid jeopardy to the sturgeon. BPA has performed and funded analyses over the past eight years to better understand the status and life history requirements of the sturgeon and bases its opinion on these analyses.

1. Status of the Species

Libby Dam was completed in 1974. At that time little was known regarding the status and life history of the Kootenai River white sturgeon (*Acipenser transmontanus*). British Columbia Ministry of Environment and Parks,[16] Idaho Department of Fish and Game (IDFG),[17] and Montana Department of Fish, Wildlife and parks (MDFWP)[18] initiated studies in the late 1970's and early 1980's to evaluate the status and life history of these sturgeon.

Population estimates were made from these studies in 1982 and 1990. They showed that during this time period the sturgeon

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[16] Andrusak 1980.
[17] Partridge 1983.
[18] Graham 1981.

population declines from an estimated 1,194 fish[19] to approximately 880 fish.[20] Only eight fish have been captured during monitoring activities since 1989 that were determined to be from post 1974 classes. Four of these fish resulted from natural spawning in the years 1976 through 1978, and four fish came from the 1991 year class. There is some uncertainty whether the fish from the 1991 year class were naturally spawned or spawned in the Kootenai Tribe of Idaho experimental sturgeon hatchery.

2. BPA's Research Activities

In 1988 BPA began funding IDFG and the Kootenai Tribe of Idaho (KTOI) to identify environmental factors limiting the white surgeon population in the Kootenai River as part of the Northwest Power Planning Council's Fish and Wildlife Program. IDFG research focused on the status and life history requirements of the sturgeon. KTOI constructed an experimental hatchery to determine the feasibility of artificial propagation of the sturgeon.

In the spring of 1991 IDFG requested the COE to shape flows from Libby Dam for sturgeon research. The COE shaped flows as requested which provided flows of above 35,000 cfs at Bonners Ferry, Idaho for 15 days. A peak flow of 53,000 cfs was recorded on May 19 at Porthill, Idaho. A similar request was made in 1992, but not implemented since it was a poor water year and water was therefore not required to be released for flood control during the sturgeon spawning period.

The Kootenai River white sturgeon was petitioned for listing under the ESA on June 11, 1992, by the Idaho Conservation League, Northern Idaho Audubon and Boundary Backers.

3. Sturgeon Technical Committee 1992-1993

On June 16, 1992, the COE, BPA, FWS, IDFG, MDFWP, KTOI, and several other U.S. and Canadian organizations formed the Kootenai River White Sturgeon Technical Committee. The Committee sought to identify factors affecting Kootenai River white sturgeon and develop a regional pre-listing recovery strategy

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[19] Partridge 1983.

[20] Apperson and Anders 1991.

that would form the basis of a conservation agreement between the FWS and various agencies. This group focused on lack of flows as the primary cause of sturgeon decline and did not address the possible impacts of contaminants, loss of habitat and lack of nutrients.

In 1993, the FWS requested flows of 35,000 cfs over a 40-day period with ramp up and ramp down periods. The requested operation extended from mid-April to mid-August. The COE and BPA responded that the FWS request did not fall within the operating constraints of the hydrosystem, but agreed to provide 400,000 acre-feet of water for an experimental flow to be released beginning June 1, 1993. The goal of the experiment was to determine if 20,000 cfs sustained for two weeks at Bonners Ferry would result in sturgeon spawning (presence of eggs/larvae). A total of three eggs were collected. The Committee did not reach a conclusion on a recovery strategy and disbanded in April 1993.

On July 7, 1993, the FWS proposed to list the Kootenai River population of white sturgeon as "endangered" under the ESA.[21] On November 18, 1993, BPA submitted written comments on the proposed rule to the FWS.

4. Kootenai River Basin Steering Committee 1993-Present

In October 1993, the Kootenai River White Sturgeon Steering Committee convened to continue white sturgeon discussions following the disbanding of the Committee. The group initially focused on technical issues related to white sturgeon recovery and coordination of BPA funded research activities in the Kootenai River. In February 1994 they expanded to include all research (burbot, nutrient dynamics, etc.) in the Kootenai River basin and changed their name to the Kootenai River Basin Steering Committee. The group facilitates technical discussions, exchanges of information and coordinates research activities in the basin.

5. Formal Conferencing

On December 2, 1993, the COE and BPA requested formal

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[21] 58 Fed. Reg. 36379.

conferencing under section 7 of the ESA on the effects of 1994-98 FCRPS operations on the Kootenai River white sturgeon. The FWS issued a formal Conference Opinion on July 27, 1994, concluding that the proposed action was not likely to jeopardize the sturgeon.

The action proposed was in three out of ten years to: 1) maintain 15,000 cfs at Bonner's Ferry in May; 2) increase flows to provide 20,000 cfs at Bonners Ferry for 35 days during the suspected sturgeon spawning period; 3) ramp down and maintain 11,000 cfs for 28 days; and 4) conduct no load-following during May through July in years in which these flows were provided. This action also provides potential benefits to the listed salmon species.

During the 1994 runoff period, BPA and the COE stored 1,200,000 acre-feet of water behind Libby Dam which was shaped and released from May-July to stimulate natural sturgeon spawning. Beginning on May 9, the flow at Bonners Ferry was held above 15,000 cfs, then increased to 20,000 cfs on June 1 and held for 28 days. Flows were ramped down over three days to 12,000 cfs and held stable over the holiday weekend (Fourth of July) at the request of Montana, then further ramped down over five days to 4,000 cfs by July 11. This operation exhausted the 1.2 MAF of water stored for sturgeon.[22] Although the release fell short of the intended operation due to record low incremental flows and concerns for final refill elevations of Lake Koocanusa, a total of 253 eggs and one larvae were collected in the Shorty's Island area. The location of these eggs is significant because, until they were found in 1994, the Shorty's Island area was thought to be only a staging area for the sturgeon. Presence of eggs suggests that spawning may have occurred in prior years in which sturgeon were observed in that area but sampling was not conducted as extensively as in 1994.

6. Listing and Consultation

The Kootenai River population of white sturgeon was listed as endangered under the ESA on September 6, 1994.[23] In the final

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[22] Kootenai Tribe at al (1994).
[23] 59 Fed. Reg. 45989.

rule FWS states "that there is no recent evidence of successful spawning and survival past the egg stage" and "existing regulations and experimental flow programs have not been effective in arresting this decline."[24]

Even though sturgeon spawned in 1994, there is no evidence that young sturgeon were recruited to the population. The lack of larvae and fry collected in sampling gear may have been related to time and location of sampling rather than lack of sturgeon in the system.[25] BPA believes that sampling for larval, fry and juvenile sturgeon needs to be done in the lower Kootenai River, the south arm delta area of Kootenay Lake and in Kootenay Lake, B.C. However, sampling in Canada is dependent upon approval from British Columbia. Unfortunately, demonstrating any juvenile recruitment, let alone "significant" recruitment, may require more than one year after any proposed operation. BPA believes that flows are one of the important components affecting sturgeon recruitment. However, the exact magnitude and duration of flow required to produce "significant" recruitment is unknown. Other possible factors affecting sturgeon recruitment include reduced biological productivity, loss of habitat, poor water quality and effects of contaminants. Focus on only one potential limiting factor responsible for recruitment since 1974 should be avoided because it may prevent the development of effective recovery measures. This comprehensive approach should be used to develop research priorities and conservation measures to insure the continued existence of the sturgeon. Future refinement of the technical standard for "significant recruitment will be made by the FWS in coordination with the Kootenai River White Sturgeon Recovery Team.

7. FWS Biological Opinion

The 1995 and 1996-98 operations described in the FWS B.O. will come closer to replicating the shape (fluctuating flows) of the natural hydrograph that has been attributed by some with providing favorable conditions not only for spawning but also for larval

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[24] 59 Fed. Reg. 45989.
[25] Biological Assessment.

dispersion, which may increase survival and recruitment. The operations for 1995 coupled with the vastly improved snow pack this year in the watershed below Libby Dam and above Bonners Ferry will provide flows that will, at times, double the volume of water that passed Bonners Ferry in 1994. In addition, the 1995 hydrograph will be very similar to the 1991 hydrograph which is the year in which four out of the eight known post-1974 white sturgeon recruited to the population.

In evaluating the effects of fluctuating flows on this population of sturgeon, BPA took into consideration the following information. As noted above, four of the eight known post-1974 age class sturgeon were spawned in 1991[26] and the remaining four were spawned between 1976 and 1978. Flows during May-July 1991 in Porthill, Idaho ranged from 14,000 cfs to 53,700 cfs and water temperature varied between 9.0° and 20.5° C. In 1977 flows ranged from 4,140 to 24,400 cfs and water temperature varied between 10° and 20.5° C. Flows in 1976 ranged from 8,800 to 44,000 cfs and water temperature varied between 10° and 16° C. Canadian information on white sturgeon below Keenleyside Dam suggests that spawning is enhanced when adequate temperatures are reached on a rising hydrograph.[27] This information suggests that a more natural hydrograph, (pre-1974, 1976-78, and 1991 flows) is adequate for spawning and recruitment of sturgeon in the Kootenai River.

Replicating a more natural hydrograph with releases from Libby Dam will allow a comparison between this operation and the steady flow of 20,000 cfs that was provided in the drought year of 1994. This comparison will provide a wider range of site specific flows in the spawning areas which will allow further data collection and ultimately refined assumptions as to the physical conditions that Kootenai River white sturgeon require for spawning and recruitment. Potential benefits of the 1995 and 1996-98 operations may include: 1) better spawning conditions by

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[26] There is some uncertainty as to whether the fish from the 1991 year class were naturally spawned or spawned in the Kootenai Tribe of Idaho experimental sturgeon hatchery.

[27] Hildebrand 1994.

allowing temperatures to increase with a rising hydrograph; 2) increased survival due to improved egg incubation and larval rearing conditions; 3) dispersal of larval, fry and juveniles downstream to Kootenay Lake and 4) a more natural hydrograph that has been shown to provide recruitment.

VII. REINITIATION OF CONSULTATION

As provided in the regulations and in the biological opinions, BPA will reinitiate consultation if (a) the amount or extent of taking specified in the incidental take statement is exceeded, (b) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent that was not previously considered, (c) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion, or (d) a new species is listed or critical habitat designated that may be affected by the identified action.[28]

Issued in Portland, Oregon, on March 10, 1995

/s/

Randall W. Hardy

Administrator and Chief Executive Officer

[28] 50 C.F.R. § 402.16

NOT FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

ALUMINUM COMPANY OF AMERICA, COLUMBIA ALUMINUM CORPORATION, COLUMBIA FALLS ALUMINUM COMPANY, ELF ATOCHEM NORTH AMERICA, INC., INTALCO ALUMINUM CORPORATION, KAISER ALUMINUM & CHEMICAL CORPORATION, NORTHWEST ALUMINUM COMPANY, REYNOLDS METALS COMPANY, and VANALCO, INC.,	)	No. 95-70480
Petitioners,	)	ORDER DENYING PETITION FOR REHEARING AND FOR REHEARING EN BANC
vs.	)	
ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION,	)	
Respondent.	)	

BEFORE: LEAVY, McKEOWN, and WARDLAW, Circuit Judges.

The panel has unanimously voted to deny petitioners' petition for rehearing. The petition for rehearing en banc was circulated to the judges of the court, and no judge requested a vote for en banc consideration.

The petition for rehearing and the petition for rehearing en banc are DENIED.

STATUTES AND REGULATIONS

16 U.S.C. §825s

Sec. 825s. Sale of electric power from reservoir projects; rate schedules; preference in sale; construction of transmission lines; disposition of moneys.

Electric power and energy generated at reservoir projects under the ***control*** of the Department of the Army and in the opinion of the Secretary of the Army not required in the operation of such projects shall be delivered to the Secretary of Energy who shall transmit and dispose of such power and energy in such manner as to encourage the most widespread use thereof at the lowest possible rates to consumers consistent with sound business principles, the rate schedules to become effective upon confirmation and approval by the Secretary of Energy. Rate schedules shall be drawn having regard to the recovery (upon the basis of the application of such rate schedules to the capacity of the electric facilities of the projects) of the cost of producing and transmitting such electric energy, including the amortization of the capital investment allocated to power over a reasonable period of years. Preference in the sale of such power and energy shall be given to public bodies and cooperatives. The Secretary of Energy is authorized, from funds to be appropriated by the Congress, to construct or acquire, by purchase or other agreement, only such transmission lines and related facilities as may be necessary in order to make the power and energy generated at said projects available in wholesale quantities for sale on fair and reasonable terms and conditions to facilities owned by the Federal Government, public bodies, cooperatives, and privately owned companies. All moneys received from such sales shall be deposited in the Treasury of the United States as miscellaneous receipts.

16 U.S.C. §832a(b)

Sec. 832a. General administrative provisions

(b) Electric transmission lines and equipment

In order to encourage the widest possible use of all electric

energy that can be generated and marketed and to provide reasonable outlets therefor, and to prevent the monopolization thereof by limited groups, the administrator is authorized and directed to provide, construct, operate, maintain, and improve such electric transmission lines and substations, and facilities and structures appurtenant thereto, as he finds necessary, desirable, or appropriate for the purpose of transmitting electric energy, available for sale, from the Bonneville project to existing and potential markets, and, for the purpose of interchange of electric energy, to interconnect the Bonneville project with other Federal projects and publicly owned power systems constructed on or after August 20, 1937.

16 U.S.C. §839

Sec. 839. Congressional declaration of purpose

The purposes of this chapter, together with the provisions of other laws applicable to the Federal Columbia River Power System, are all intended to be construed in a consistent manner. Such purposes are also intended to be construed in a manner consistent with applicable environmental laws. Such purposes are:

(1) to encourage, through the unique opportunity provided by the Federal Columbia River Power System –

(A) conservation and efficiency in the use of electric power, and

(B) the development of renewable resources within the Pacific Northwest;

(2) to assure the Pacific Northwest of an adequate, efficient, economical, and reliable power supply;

(3) to provide for the participation and consultation of the Pacific Northwest States, local governments, consumers, customers, users of the Columbia River System (including Federal and State fish and wildlife agencies and appropriate Indian tribes), and the public at large within the region in –

(A) the development of regional plans and programs related to energy conservation, renewable resources, other

resources, and protecting, mitigating and enhancing fish and wildlife resources,

(B) facilitating the orderly planning of the region's power system, and

(C) providing environmental quality;

(4) to provide that the customers of the Bonneville Power Administration and their consumers continue to pay all costs necessary to produce, transmit, and conserve resources to meet the region's electric power requirements, including the amortization on a current basis of the Federal investment in the Federal Columbia River Power System;

(5) to insure, subject to the provisions of this chapter -

(A) that the authorities and responsibilities of State and local governments, electric utility systems, water management agencies, and other non-Federal entities for the regulation, planning, conservation, supply, distribution, and use of electric power shall be construed to be maintained, and

(B) that Congress intends that this chapter not be construed to limit or restrict the ability of customers to take actions in accordance with other applicable provisions of Federal or State law, including, but not limited to, actions to plan, develop, and operate resources and to achieve conservation, without regard to this chapter; and

(6) to protect, mitigate and enhance the fish and wildlife, including related spawning grounds and habitat, of the Columbia River and its tributaries, particularly anadromous fish which are of significant importance to the social and economic well-being of the Pacific Northwest and the Nation and which are dependent on suitable environmental conditions substantially obtainable from the management and operation of the Federal Columbia River Power System and other power generating facilities on the Columbia River and its tributaries.

16 U.S.C. §1536(a) & (b)

Sec. 1536. Interagency cooperation

(a) Federal agency actions and consultations

(1) The Secretary shall review other programs

administered by him and utilize such programs in furtherance of the purposes of this chapter. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 1533 of this title.

(2) Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section. In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available.

(3) Subject to such guidelines as the Secretary may establish, a Federal agency shall consult with the Secretary on any prospective agency action at the request of, and in cooperation with, the prospective permit or license applicant if the applicant has reason to believe that an endangered species or a threatened species may be present in the area affected by his project and that implementation of such action will likely affect such species.

(4) Each Federal agency shall confer with the Secretary on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under section 1533 of this title or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. This paragraph does not require a limitation on the commitment of resources as described in subsection (d) of this section.

(b) Opinion of Secretary

(1)(A) Consultation under subsection (a)(2) of this section with respect to any agency action shall be concluded within the 90-day period beginning on the date on which initiated or, subject to subparagraph (B), within such other period of time as is mutually agreeable to the Secretary and the Federal agency.

(B) In the case of an agency action involving a permit or license applicant, the Secretary and the Federal agency may not mutually agree to conclude consultation within a period exceeding 90 days unless the Secretary, before the close of the 90th day referred to in subparagraph (A) –

(i) if the consultation period proposed to be agreed to will end before the 150th day after the date on which consultation was initiated, submits to the applicant a written statement setting forth –

(I) the reasons why a longer period is required,

(II) the information that is required to complete the consultation, and

(III) the estimated date on which consultation will be completed; or

(ii) if the consultation period proposed to be agreed to will end 150 or more days after the date on which consultation was initiated, obtains the consent of the applicant to such period.

The Secretary and the Federal agency may mutually agree to extend a consultation period established under the preceding sentence if the Secretary, before the close of such period, obtains the consent of the applicant to the extension.

(2) Consultation under subsection (a)(3) of this section shall be concluded within such period as is agreeable to the Secretary, the Federal agency, and the applicant concerned.

(3)(A) Promptly after conclusion of consultation under paragraph (2) or (3) of subsection (a) of this section, the Secretary shall provide to the Federal agency and the applicant, if any, a written statement setting forth the Secretary's opinion, and a summary of the information on which the opinion is based,

detailing how the agency action affects the species or its critical habitat. If jeopardy or adverse modification is found, the Secretary shall suggest those reasonable and prudent alternatives which he believes would not violate subsection (a)(2) of this section and can be taken by the Federal agency or applicant in implementing the agency action.

(B) Consultation under subsection (a)(3) of this section, and an opinion issued by the Secretary incident to such consultation, regarding an agency action shall be treated respectively as a consultation under subsection (a)(2) of this section, and as an opinion issued after consultation under such subsection, regarding that action if the Secretary reviews the action before it is commenced by the Federal agency and finds, and notifies such agency, that no significant changes have been made with respect to the action and that no significant change has occurred regarding the information used during the initial consultation.

(4) If after consultation under subsection (a)(2) of this section, the Secretary concludes that –

(A) the agency action will not violate such subsection, or offers reasonable and prudent alternatives which the Secretary believes would not violate such subsection;

(B) the taking of an endangered species or a threatened species incidental to the agency action will not violate such subsection; and

(C) if an endangered species or threatened species of a marine mammal is involved, the taking is authorized pursuant to section 1371(a)(5) of this title;

the Secretary shall provide the Federal agency and the applicant concerned, if any, with a written statement that –

(i) specifies the impact of such incidental taking on the species,

(ii) specifies those reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact,

(iii) in the case of marine mammals, specifies those measures that are necessary to comply with section

1371(a)(5) of this title with regard to such taking, and

(iv) sets forth the terms and conditions (including, but not limited to, reporting requirements) that must be complied with by the Federal agency or applicant (if any), or both, to implement the measures specified under clauses (ii) and (iii).

50 CFR §402.02

Sec. 402.02. Definitions.

Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration.

Jeopardize the continued existence of means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.